

Remark

Applicants respectfully request reconsideration of this application as amended. No claims have been amended. No claims have been cancelled. Therefore, claims 1-40 are present for examination.

35 U.S.C. §102 Rejection*Wallace*

The Examiner has rejected claims 1-6, 8-9, 12-18, 22-24, 26-28, 30-34 and 37-40 under 35 U.S.C. §102 (e) as being anticipated by Wallace, U.S. Publication No. 2002/0193146 ("Wallace"). Wallace shows a CDMA system that can apply "pure diversity" or "spatial multiplexing" based on link quality (para. 106, 121). The link quality is reported to a transmitting base station by a receiving mobile station (para. 97, 105, 139). The link quality report is also used to adjust encoding and modulation (para. 97, 105). However, most of the reference is directed only to reception diversity (para. 31-79, 82-93).

Claim 1 recites "comparing characteristics of the received signal as received at the plurality of antennas." The only reference to anything resembling such a comparison in Wallace is in the description of RAKE receivers (para. 56) and of "diversity combining" (para. 61), and "selection diversity" (para. 74), all related to receiving only. Claim 1 further recites, "determining .. based on the comparisons." Applicants find no suggestion of selecting a Wallace diversity transmission mode based on any such comparison. Transmission modes in Wallace are selected based on the capabilities of the mobile station (e.g. para. 104) and perhaps on a link quality report received from the mobile station.

The Examiner refers to paragraphs 55, 59 and 74 for comparing characteristics of the received signal. Paragraph 55 discusses RAKE receiver design and synchronizing different signals but fails to suggest comparing signals to each other. Paragraph 59 describes RAKE receiver operation in comparing incoming signals and perhaps determining relative delay, but there is no suggestion that a transmit mode be selected based on this. Paragraph 74 describes "selection diversity" in which received signals are compared to select the best one. Again, there is no suggestion that a transmit mode be selected based on this.

For determining whether reception is likely to be improved by transmission diversity, the Examiner also refers to paragraph 125. This paragraph summarizes the transmission scenario determination as depending entirely upon the configuration of the mobile station, especially the number of antennas. There is no suggestion that any received signal comparison or even the mobile station's link quality report be used.

For transmitting with diversity based on the determination, the Examiner refers to paragraph 65. This paragraph describes using antenna diversity at the transmitter and mentions some effects on fading, SNR, etc. There is no mention in this paragraph of how a decision to use transmission diversity might be made and no suggestion that such a decision be based on comparing received signals at multiple antennas.

In sum, Wallace fails to teach or suggest the interconnection between elements as recited in Claim 1. Accordingly, Claim 1 is believed to be allowable over the reference. Claims 12, 23, 30, and 34 are believed to be allowable on similar grounds, among others. The remaining claims are dependent claims and are believed to be allowable for their dependency as well as for the additional recitations set forth in each claim, respectively.

Allowable Subject Matter

Applicants note the indication of allowable subject matter and thank the Examiner for the careful attention to this application. The claims indicated as allowable remain in the application.

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Conclusion

Applicant respectfully submits that the rejections have been overcome by the amendment and remark, and that the claims as amended are now in condition for allowance. Accordingly, Applicant respectfully requests the rejections be withdrawn and the claims as amended be allowed.

Invitation for a Telephone Interview

The Examiner is requested to call the undersigned at (303) 740-1980 if there remains any issue with allowance of the case.

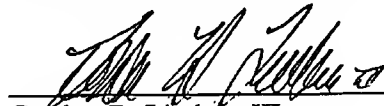
Request for an Extension of Time

Applicant respectfully petitions for an extension of time to respond to the outstanding Office Action pursuant to 37 C.F.R. § 1.136(a) should one be necessary. Please charge our Deposit Account No. 02-2666 to cover the necessary fee under 37 C.F.R. § 1.17(a) for such an extension. Charge our Deposit Account.

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Date: 11/10/04


Gordon R. Lindeen III
Reg. No. 33,192

12400 Wilshire Boulevard
7th Floor
Los Angeles, California 90025-1026
(303) 740-1980

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